

PATENT
APPLICATION NO 10/045,517

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application. While no changes have been made to the claims with this amendment, the claims are listed here for the convenience of the Examiner.

Listing of Claims:

- 1 1. (Original) For a CANOpen network including a bus master and an I/O
2 module, each communicatively coupled to a common bus; wherein the I/O module is
3 subject to a state change, a method of permitting the bus master to collect state
4 information from the I/O module, the method comprising:
5 determining if the bus master is prepared to receive further data from the
6 bus;
7 sending a trigger signal from the bus master to the I/O module if the bus
8 master is prepared to receive further data from the bus ; and
9 sending a state signal from the I/O module to the bus master in response to
10 the trigger signal.

- 1 2. (Original) The method of claim 1 including a plurality of I/O modules,
2 each communicatively coupled to the common bus, wherein each of the I/O modules is
3 subject to a state change, the method comprising:
4 determining if the bus master is prepared to receive further data from the
5 bus;
6 sending a trigger signal from the bus master to a selected one of the I/O
7 modules if the bus master is prepared to receive further data from the bus; and
8 sending a state signal from the selected I/O module to the bus master in
9 response to the trigger signal.

- 1 3. (Original) The method of claim 2 comprising:
2 configuring a plurality of the I/O modules as a group;

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3 determining if the bus master is prepared to receive further data from the
4 bus;
5 sending a trigger signal from the bus master to a selected group of the I/O
6 modules if the bus master is prepared to receive further data from the bus; and
7 sending a state signal from each I/O module of the selected group of I/O
8 modules to the bus master in response to the trigger signal.

1 4. (Original) The method of claim 3 wherein the group of I/O modules is less
2 than the total plurality of I/O modules.

1 5. (Original) For a CANOpen network including a bus master and a plurality
2 of I/O modules, each communicatively coupled to a common bus, wherein the plurality of
3 I/O modules are configured as a plurality of groups of I/O modules, and each of the I/O
4 modules is subject to a state change, a method of permitting the bus master to collect state
5 information from a selected group of I/O modules, the method comprising:
6 determining if the bus master is prepared to receive further data from the bus;
7 sending a trigger signal from the bus master to the selected group of I/O modules
8 if the bus master is prepared to receive further data from the bus; and
9 sending a state signal from each of the I/O modules in the selected group to the
10 bus master in response to the trigger signal.

1 6. (Original) A CANOpen network comprising:
2 a bus master;
3 an I/O module subject to state changes;
4 a common bus communicatively coupling the bus master and the I/O
5 module, wherein the bus master includes means for sending a trigger signal from the bus
6 master to the I/O module when the bus master is prepared to receive further data from the
7 bus, and the I/O module includes means for sending a state signal from the I/O module to
8 the bus master in response to the trigger signal to permit the bus master to collect state
9 information from the I/O module.

1 7. (Original) The network of claim 6 including a plurality of I/O modules,
2 each communicatively coupled to the common bus, wherein each of the I/O modules is
3 subject to a state change, wherein the bus master includes means for sending a trigger to a
4 selected one of the I/O modules when the bus master is prepared to receive further data

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5 from the bus, and the I/O modules include means for sending a state signal from the
6 selected I/O module to the bus master in response to the trigger signal.

1 8. (Original) The network of claim 7, wherein:
2 a plurality of the I/O modules are configured as a group;
3 the bus master includes means for sending a trigger signal from the bus
4 master to a selected group of the I/O modules when the bus master is prepared to receive
5 further data from the bus; and
6 each of the I/O modules in the selected group includes means for sending a
7 state signal from each I/O module of the selected group to the bus master in response to
8 the trigger signal.

1 9. (Original) The network of claim 8 wherein the group of I/O modules is
2 less than the total plurality of I/O modules.

1 10. (Original) A CANOpen network comprising:
2 a bus master;
3 a plurality of I/O modules subject to state changes, wherein the plurality of
4 I/O modules are configured as a plurality of groups of I/O modules, and
5 a bus communicatively coupling the bus master and each of the I/O
6 modules, wherein the bus master includes means for sending a trigger signal from the bus
7 master to a selected group of I/O modules when the bus master is prepared to receive
8 further data from the bus; and the each of the I/O modules in the selected group includes
9 means for sending a state signal from each of the I/O modules in the selected group to the
10 bus master in response to the trigger signal.

1 11 (Original) For a CANOpen network including a bus master and an I/O
2 module, each communicatively coupled to a common bus, wherein the I/O module is
3 subject to a state change, a computer readable medium containing program instructions
4 for execution by the bus master to cause the bus master to perform steps for collecting
5 state information from the I/O module, the method comprising:
6 selectively sending a trigger signal from the bus master to the I/O module; and
7 collecting a state signal from the I/O module sent by the I/O module in response
8 to the trigger signal.

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1 12. (Original) For a CANOpen network including a bus master and a plurality
2 of I/O modules, each communicatively coupled to a common bus, wherein the plurality of
3 I/O modules are configured as a plurality of groups of I/O modules, and each of the I/O
4 modules is subject to a state change, a computer readable medium containing program
5 instructions for execution by the bus master to cause the bus master to perform steps for
6 collecting state information from a selected group of I/O modules, the method
7 comprising:
8 determining if the bus master is prepared to receive further data from the bus;
9 sending a trigger signal from the bus master to the selected group of I/O modules
10 if the bus master is prepared to receive further data from the bus; and
11 collecting a state signal from each of the I/O modules in the selected group sent
12 by the I/O modules in the selected group in response to the trigger signal.